

### 3.5.6 Global Geophysical Fluids Center (GGFC)

Established by the International Earth Rotation Service (IERS) on January 1, 1998, the Global Geophysical Fluids Centre (GGFC) has the responsibility of supporting, facilitating, and providing services to the worldwide research community in areas related to the variations in Earth rotation, gravitational field and geocentre that are caused by mass transport in the geophysical fluids and the induced loading effects.

Under the GGFC, eight Special Bureaus (SB) were established. They are SB for Atmosphere, Oceans, Hydrology, Tides, Mantle, Core, Loading, and Gravity/Geocentre (see below). Angular momenta and the related torques, gravitational coefficients, geocentre shift, and surface loading deformation fields will be computed for all geophysical fluids based on global observational data, and/or products from state-of-the-art models some of which assimilate such data. The computed quantities, algorithm and data formats will be standardized. The data products are, and additional ones will be, archived and made available to the scientific research community.

During 2002, GGFC participated in the following activities:

The 2002 International Earth Rotation (IERS) Workshop on Combination Research and Global Geophysical Fluids was held in the Bavarian Academy of Sciences, Munich, Germany, November 18 – 21, 2002, participated by over 100 scientists. The GGFC portion was organized into 8 Special Bureau sub-sessions during two full days of intensive presentations and discussions, followed by an all-hands meeting discussing future prospects of GGFC.

A dedicated Geodesy special session, entitled “Geodesy at the Solid-Fluid Interface”, was held at the Fall AGU’2002 meeting, San Francisco, Dec. 9, 2002, co-chaired by R. Gross and C. Wilson. In addition to oral presentations, all 8 Special Bureaus of GGFC gave invited posters.

Two open GGFC “business” meetings were held in 2002:

April 24, 2002, Nice, France, during the European Geophysical Society General Assembly; and November 21, 2002, Munich, Germany, in conjunction with the 2002 IERS Workshop.

The Websites given in Appendix 4 contain detailed information of GGFC and the SBs, including description and availability of archived data, useful graphics, members/associates list, call for participation, planned activities, and bibliography, etc.

Detail reports from each SB follow.

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